



# Village of Walton Hills

## Building Department

Kevin Hurst – Mayor / Safety Director

# WATERPROOFING GUIDELINES

FOLLOW CURRENT VILLAGE ORDINANCES AND CODES AS ADOPTED BY THE  
STATE OF OHIO

## FOUNDATION DRAINAGE

**405.1 Concrete or masonry foundations.** Drains shall be provided around all concrete or masonry foundations that retain earth and enclose habitable or usable spaces located below grade. Drainage tiles, gravel or crushed stone drains, perforated pipe or other approved systems or materials shall be installed at or below the area to be protected and shall discharge by gravity or mechanical means into an approved drainage system *or other location that complies with the Ohio Plumbing Code*. Gravel or crushed stone drains shall extend at least 1 foot (305 mm) beyond the outside edge of the footing and 6 inches (152 mm) above the top of the footing and be covered with an approved filter membrane material. The top of open joints of drain tiles shall be protected with strips of building paper, and the drainage tiles or perforated pipe shall be placed on a minimum of 2 inches (51 mm) of washed gravel or crushed rock at least one sieve size larger than the tile joint opening or perforation and covered with not less than 6 inches (152 mm) of the same material.

**Exception:** A drainage system is not required when the foundation is installed on well-drained ground or sand-gravel mixture soils according to the Unified Soil Classification System, Group I Soils, as detailed in Table R405.1.

## FOUNDATION WATERPROOFING AND DAMPPROOFING

**406.1 Concrete and masonry foundation damp-proofing.** Except where required by Section 406.2 to be waterproofed, foundation walls that retain earth and enclose interior spaces and floors below grade shall be damp-proofed from the top of the footing to the finished grade. Masonry walls shall have not less than 3/8 inch (9.5 mm) Portland cement parging applied to the exterior of the wall. The parging shall be damp-proofed in accordance with one of the following:

1. Bituminous coating.
2. Three pounds per square yard (1.63 kg/m<sup>2</sup>) of acrylic modified cement.
3. One-eighth inch (3.2 mm) coat of surface-bonding cement complying with ASTM C 887.
4. Any material permitted for waterproofing in Section 406.2.
5. Other approved methods or materials.

**Exception:** Parging of unit masonry walls is not required where a material is approved for direct application to the masonry.

Concrete walls shall be damp-proofed by applying any one of the above listed damp-proofing materials or any one of the waterproofing materials listed in Section 406.2 to the exterior of the wall.

1. Two-ply hot-mopped felts.
2. Fifty five pound (25 kg) roll roofing.

3. Six-mil (0.15 mm) polyvinyl chloride.
4. Six-mil (0.15 mm) polyethylene.
5. Forty-mil (1 mm) polymer-modified asphalt.
6. Sixty-mil (1.5 mm) flexible polymer cement.
7. One-eighth inch (3 mm) cement-based, fiber-reinforced, waterproof coating.
8. Sixty-mil (0.22 mm) solvent-free liquid-applied synthetic rubber.

**Exception:** Existing foundations shall not be required to be damp-proofed where a supplement interior foundation drainage system is installed and connected to a sump pump.

**406.2 Concrete and masonry foundation waterproofing.** In areas where a high water table or other severe soil-water conditions are known to exist, exterior foundation walls that retain earth and enclose interior spaces and floors below grade shall be waterproofed from the top of the footing to the finished grade. Walls shall be waterproofed in accordance with one of the following:

## **INSPECTIONS REQUIRED:**

**First Inspection, A.** Parging is 100% complete. **B.** The foundation wall is 100% sealed for damp-proofing with a bituminous coating. For waterproofing in areas with a high water table, the membrane covering shall be installed, lapped a minimum of 6 inches and sealed. **C.** Minimum of 2 inches of gravel base installed below the drainage tile or perforated piping. **D.** Drainage piping is 100% installed, **piping has the approved filter membrane completely around the drainage piping**, and this piping will be inspected at this time. Contact the Building Department at 440-232-7800 for inspection.

**Second Inspection, if the filter membrane is not used around drainage piping, a minimum of 6 inches of gravel shall be installed above the drainage piping and the approved filter membrane shall be completely in place on top of the gravel.** If the filter membrane was installed around the piping and passed the first inspection, call for the second inspection when gravel is backfilled and topsoil is on site but not backfilled.

**Final Inspection,** When completely backfilled with topsoil and the entire area is properly graded, seeded with lawn seeds and/or original flower bed or shrubs are re-planted and all downspouts are connected.

**IF ANY OF THE ABOVE IS NOT COMPLETE AT TIME OF INSPECTION, A RE-INSPECTION FEE MAY APPLY**